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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/238,859	01/28/99	SIMON U	GK-ZEL-3039

MM92/1019

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EXAMINER	
VERBITSKY,G	
ART UNIT	**PAPER NUMBER**
2859	

DATE MAILED: 10/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/238,859	Simon ~~Rothenstein~~ et al.
Examiner	**Group Art Unit**
Gail Verbitsky	2859

☒ Responsive to communication(s) filed on *Sep 5, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *2 and 4-9* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *2 and 4-9* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on *Jan. 28, 1999* is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for cooling and heating must be shown or the feature(s) canceled from the claim(s) 2.

No new matter should be entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2, 4-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In this case, means for cooling and heating are not described in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Prior Art in view of Kemeny et al. [hereinafter Kemeny], Fay and Nelson et al. [hereinafter Nelson].

The Prior Art, as stated by applicant, (spec., page 1) discloses a laser scanning microscope with an AOTF. The Prior Art discloses the problem related to the use of AOTF and, in a broad sense, suggests to measure the temperature of the AOTF.

Kemeny discloses in Figs. 6-8 a device to control an AOTF comprising an AOTF 102, a heater 164, temperature sensors (gauge) 167, 170 connected to a heater controller 166 and located within vicinity of the AOTF. The heater is capable of maintaining the temperature of the AOTF within 1^0C of the desired temperature which can be between 35^0- 40^0C. Output lines 190a and 190b are carrying a signal from the temperature sensors to a controller (driving unit) 300. Cooling of the AOTF is achieved simply by shutting the heater off (entire col. 8). Kemeny suggests to drive the AOTF at any desired frequency (col. 14, lines 22-23) and, thus, in a broad sense, at constant frequency.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the AOTF disclosed by the Prior Art with the AOTF having

temperature sensors, a heater, etc., as taught by Kemeny, in order to be able to control the temperature of the device and keep it constant, as already suggested by Kemeny and very well known in the prior art.

It would have also been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by the Prior Art such that to drive the AOTF with constant frequency, as, in a broad sense, suggested by Kemeny, because the use of the constant frequency to drive the AOTF, absent any criticality, is only considered to be the "optimum" or "preferred" frequency that the person having ordinary skill in the art at the time the invention was made would have found obvious to provide using routine experimentation based, among other things, on the intensity of the signal.

The Prior art and Kemeny do not explicitly disclose a temperature control including a cooler.

Fay discloses a thermoelectric cooler 160 located in the vicinity of AOTF (or Fabry Perot, col. 9, lines 19-21, col. 10, line 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace a temperature controller in the device disclosed by the Prior Art and Kemeny with the thermoelectric cooler, as taught by Fay, in order to be able to regulate the temperature of the AOTF by heating or cooling the AOTF, as can be done by the thermoelectric cooler and well known in the art.

The Prior Art, Kemeny and Fay do not explicitly disclose an AOTF being kept at constant temperature.

Nelson discloses a device comprising the arrangement which permits to keep constant temperature control of the AOTF (col. 5, lines 3-4). Such constant temperature control promotes accuracy over a wider range of ambient conditions (col. 5, lines 7-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by the Prior Art, Kemeny and Nelson such that to keep the temperature constant in order to promote accuracy over a wider range of ambient conditions, as already suggested by Nelson.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

7. Applicant's arguments with respect to claims 2, 4-9 have been considered but are moot in view of the new ground(s) of rejection necessitated by the present amendment.

A) Applicant states that Kemeny does not disclose a cooler. Kemeny's cooling is inactive. However, applicant only mentions a process of cooling and heating in the specification. No particular means for heating and cooling has not been described or shown in the drawings,

B) Applicant states that Kemeny does not focus on keeping the temperature constant. Nelson discloses the arrangement to keep the temperature constant.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices.

9. Any inquiry concerning this documentation should be directed to the Examiner Verbitsky whose telephone number is (703) 306-5473.

Any inquiry of general nature or related to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

October 12, 2000

G. BRADLEY BENNETT
PRIMARY EXAMINER
AU 2859